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09/647965 >

<110> Hiscock, John  
Lin, Rongtuan

<120> HIGHLY ACTIVE FORMS OF INTERFERON  
REGULATORY FACTOR PROTEINS

<130> A33606-PCT-USA 071235.0111

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<141> 2000-10-06

<150> PCT/CA99/00314  
<151> 1999-04-07

<150> CA 2,234,588  
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130 135 140	
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145 150 155 160	
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180 185 190	
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195 200 205	
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210 215 220	
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245 250 255	
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260 265 270	
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275 280 285	
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290 295 300	
cat ggg cct gat ggc gag gtc ccc aag gac aag gaa gga ggc gtg ttt His Gly Pro Asp Gly Glu Val Pro Lys Asp Lys Glu Gly Gly Val Phe	960
305 310 315 320	
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Arg Ser Ala Leu Asn Arg Lys Glu Gly Leu Arg Leu Ala Glu Asp Arg			
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Gly Asn Met Val Leu Ala Pro Leu Pro Asp Pro Gly Pro Pro Ser Leu			
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Ala Val Ala Pro Glu Pro Cys Pro Gln Pro Leu Arg Ser Pro Ser Leu			
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Asp Asn Pro Thr Pro Phe Pro Asn Leu Gly Pro Ser Glu Asn Pro Leu			

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Phe Tyr Arg Gly Arg Gln Val	Phe Gln Gln Thr Ile	Ser Cys Pro Glu
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Gly Leu Arg Leu Val Gly Ser	Glu Val Gly Asp Arg	Thr Leu Pro Gly
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Trp Pro Val Thr Leu Pro Asp Pro Gly	Met Ser Leu Thr Asp Arg	Gly
245	250	255
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260	265	270
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275	280	285
Cys His Thr Tyr Trp Ala Val Ser	Glu Glu Leu Leu Pro	Asn Ser Gly
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His Gly Pro Asp Gly Glu Val Pro Lys Asp	Lys Glu Gly Val	Phe
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Asp Leu Gly Pro Phe Ile Val Asp	Leu Ile Thr Phe Thr	Glu Gly Ser
325	330	335
Gly Arg Ser Pro Arg Tyr Ala Leu Trp Phe	Cys Val Gly Glu Ser	Trp
340	345	350
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355	360	365
Pro Thr Cys Leu Arg Ala Leu Val Glu	Met Ala Arg Val	Gly Gly Ala
370	375	380
Ser Ser Leu Glu Asn Thr Val Asp	Leu His Ile Asp Asn	Asp His Pro
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tgg ctc ctt gga gag atc agc agc ggc tgc tat gag ggg ctg cag tgg      96
Trp Leu Leu Gly Glu Ile Ser Ser Gly Cys Tyr Glu Gly Leu Gln Trp
20          25          30

ctg gac gag gcc cgc acc tgt ttc cgc gtg ccc tgg aag cac ttc gcg      144
Leu Asp Glu Ala Arg Thr Cys Phe Arg Val Pro Trp Lys His Phe Ala
35          40          45

cgc aag gac ctg agc gag gcc gac ggc cgc atc ttc aag gcc tgg gct      192
Arg Lys Asp Leu Ser Glu Ala Asp Ala Arg Ile Phe Lys Ala Trp Ala
50          55          60

gtg gcc cgc ggc agg tgg ccg cct agc agc agg gga ggt ggc cgc ccc      240
Val Ala Arg Gly Arg Trp Pro Pro Ser Ser Arg Gly Gly Gly Pro Pro
65          70          75          80

ccc gag gct gag act gcg gag cgc gcc ggc tgg aaa acc aac ttc cgc      288
Pro Glu Ala Glu Thr Ala Glu Arg Ala Gly Trp Lys Thr Asn Phe Arg
85          90          95

tgc gca ctg cgc agc acg cgt cgc ttc gtg atg ctg cggt gat aac tcg      336

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Gly	Asp	Pro	Ala	Asp	Pro	His	Lys	Val	Tyr	Ala	Leu	Ser	Arg	Glu	Leu	
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tgc	tgg	cga	gaa	ggc	cca	ggc	acg	gac	cag	act	gag	gca	gag	gcc	ccc	432
Cys	Trp	Arg	Glu	Gly	Pro	Gly	Thr	Asp	Gln	Thr	Glu	Ala	Glu	Ala	Pro	
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																135
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gca	gct	gtc	cca	cca	cca	cag	gg	gg	ccc	cca	gg	cca	ttc	tt	gca	480
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																150
																155
																160
cac	aca	cat	gct	gga	ctc	caa	gcc	cca	ggc	ccc	ctc	cct	gcc	cca	gct	528
His	Thr	His	Ala	Gly	Leu	Gln	Ala	Pro	Gly	Pro	Leu	Pro	Ala	Pro	Ala	
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																170
																175
gg	gac	aag	gg	gac	ctc	ctg	ctc	cag	gca	gt	caa	cag	agc	tgc	ctg	576
Gly	Asp	Lys	Gly	Asp	Leu	Leu	Leu	Gln	Ala	Val	Gln	Gln	Ser	Cys	Leu	
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																185
																190
gca	gac	cat	ctg	ctg	aca	g	tca	tgg	gg	gca	gat	cca	gtc	cca	acc	624
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																200
																205
aag	gct	cct	gga	gag	gga	caa	gaa	gg	ctt	ccc	ctg	act	gg	gcc	tgt	672
Lys	Ala	Pro	Gly	Glu	Gly	Gln	Glu	Gly	Leu	Pro	Leu	Thr	Gly	Ala	Cys	
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																215
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																230
																235
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Glu	Thr	Thr	Pro	Ser	Pro	Gly	Pro	Gln	Pro	Ala	Ala	Leu	Thr	Thr	Gly	
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																250
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Glu	Ala	Ala	Ala	Pro	Glu	Ser	Pro	His	Gln	Ala	Glu	Pro	Tyr	Leu	Ser	
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																265
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																310
																315
																320
gtc	cg	cc	ac	g	cc	c	c	g	ta	g	tc	cc	ag	cc	g	1008
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355	360	365	
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370	375	380	
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385	390	395	400
gac acc ccc atc ttc gac ttc aga gtc ttc caa gag ctg gtg gaa Asp Thr Pro Ile Phe Asp Phe Arg Val Phe Phe Gln Glu Leu Val Glu			1248
405	410	415	
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420	425	430	
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435	440	445	
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Gly Asp Pro Ala Asp Pro His Lys Val Tyr Ala Leu Ser Arg Glu Leu  
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130 135 140  
Ala Ala Val Pro Pro Gln Gly Gly Pro Pro Gly Pro Phe Leu Ala  
145 150 155 160  
His Thr His Ala Gly Leu Gln Ala Pro Gly Pro Leu Pro Ala Pro Ala  
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Lys Ala Pro Gly Glu Gly Gln Glu Gly Leu Pro Leu Thr Gly Ala Cys  
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Ala Gly Gly Pro Gly Leu Pro Ala Gly Glu Leu Tyr Gly Trp Ala Val  
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245 250 255  
Glu Ala Ala Ala Pro Glu Ser Pro His Gln Ala Glu Pro Tyr Leu Ser  
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Pro Ser Pro Ser Ala Cys Thr Ala Val Gln Glu Pro Ser Pro Gly Ala  
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Val Gly His Pro Ser Cys Thr Phe Leu Tyr Gly Pro Pro Asp Pro Ala  
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50 55 60

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Val Ala Arg Gly Arg Trp Pro Pro Ser Ser Arg Gly Gly Pro Pro  
65 70 75 80

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85 90 95

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260	265	270	
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275	280	285	
ccc agc ttg gac aat ccc act ccc ttc cca aac ctg ggg ccc tct gag Pro Ser Leu Asp Asn Pro Thr Pro Phe Pro Asn Leu Gly Pro Ser Glu			912
290	295	300	
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305	310	315	320
gtg aca gcc ttc tac cgg ggc cgc caa gtc ttc cag cag acc atc tcc Val Thr Ala Phe Tyr Arg Gly Arg Gln Val Phe Gln Gln Thr Ile Ser			1008
325	330	335	
tgc ccg gag ggc ctg cgg ctg gtg ggg tcc gaa gtg gga gac agg acg Cys Pro Glu Gly Leu Arg Leu Val Gly Ser Glu Val Gly Asp Arg Thr			1056
340	345	350	
ctg cct gga tgg cca gtc aca ctg cca gac cct ggc atg tcc ctg aca Leu Pro Gly Trp Pro Val Thr Leu Pro Asp Pro Gly Met Ser Leu Thr			1104
355	360	365	
gac agg gga gtg atg agc tac gtg agg cat gtg ctg agc tgc ctg ggt Asp Arg Gly Val Met Ser Tyr Val Arg His Val Leu Ser Cys Leu Gly			1152
370	375	380	
ggg gga ctg gct ctc tgg cgg gcc ggg cag tgg ctc tgg gcc cag cgg Gly Gly Leu Ala Leu Trp Arg Ala Gly Gln Trp Leu Trp Ala Gln Arg			1200
385	390	395	400

ctg ggg cac tgc cac aca tac tgg gca gtg agc gag gag ctg ctc ccc		1248	
Leu Gly His Cys His Thr Tyr Trp Ala Val Ser Glu Glu Leu Leu Pro			
405	410	415	
aac agc ggg cat ggg cct gat ggc gag gtc ccc aag gac aag gaa gga		1296	
Asn Ser Gly His Gly Pro Asp Gly Glu Val Pro Lys Asp Lys Glu Gly			
420	425	430	
ggc gtg ttt gac ctg ggg ccc ttc att gta gat ctg att acc ttc acg		1344	
Gly Val Phe Asp Leu Gly Pro Phe Ile Val Asp Leu Ile Thr Phe Thr			
435	440	445	
gaa gga agc gga cgc tca cca cgc tat gcc ctc tgg ttc tgt gtg ggg		1392	
Glu Gly Ser Gly Arg Ser Pro Arg Tyr Ala Leu Trp Phe Cys Val Gly			
450	455	460	
gag tca tgg ccc cag gac cag ccg tgg acc aag agg ctc gtg atg gtc		1440	
Glu Ser Trp Pro Gln Asp Gln Pro Trp Thr Lys Arg Leu Val Met Val			
465	470	475	480
aag gtt gtg ccc acg tgc ctc agg gcc ttg gta gaa atg gcc cggt gta		1488	
Lys Val Val Pro Thr Cys Leu Arg Ala Leu Val Glu Met Ala Arg Val			
485	490	495	
ggg ggt gcc tcc tcc ctg gag aat act gtg gac ctg cac att gac aac		1536	
Gly Gly Ala Ser Ser Leu Glu Asn Thr Val Asp Leu His Ile Asp Asn			
500	505	510	
gac cac cca ctc gac ctc gac gac cag tac aag gcc tac ctg cag		1584	
Asp His Pro Leu Asp Leu Asp Asp Gln Tyr Lys Ala Tyr Leu Gln			
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gac ttg gtg gag ggc atg gat ttc cag ggc cct ggg gag agc tga		1629	
Asp Leu Val Glu Gly Met Asp Phe Gln Gly Pro Gly Glu Ser *			
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Leu Asp Glu Ala Arg Thr Cys Phe Arg Val Pro Trp Lys His Phe Ala  
35 40 45  
Arg Lys Asp Leu Ser Glu Ala Asp Ala Arg Ile Phe Lys Ala Trp Ala  
50 55 60  
Val Ala Arg Gly Arg Trp Pro Pro Ser Ser Arg Gly Gly Pro Pro  
65 70 75 80  
Pro Glu Ala Glu Thr Ala Glu Arg Ala Gly Trp Lys Thr Asn Phe Arg  
85 90 95

Cys Ala Leu Arg Ser Thr Arg Arg Phe Val Met Leu Arg Asp Asn Ser  
100 105 110  
Gly Asp Pro Ala Asp Pro His Lys Val Tyr Ala Leu Ser Arg Glu Leu  
115 120 125  
Cys Trp Arg Glu Gly Pro Gly Thr Asp Gln Thr Glu Ala Glu Ala Pro  
130 135 140  
Ala Ala Val Pro Pro Gln Gly Gly Pro Pro Gly Pro Phe Leu Ala  
145 150 155 160  
His Thr His Ala Gly Leu Gln Ala Pro Gly Pro Leu Pro Ala Pro Ala  
165 170 175  
Gly Asp Lys Gly Asp Leu Leu Gln Ala Val Gln Gln Ser Cys Leu  
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Ala Asp His Leu Leu Thr Ala Ser Trp Gly Ala Asp Pro Val Pro Thr  
195 200 205  
Lys Ala Pro Gly Glu Gly Gln Glu Gly Leu Pro Leu Thr Gly Ala Cys  
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Ala Gly Gly Pro Gly Leu Pro Ala Gly Glu Leu Tyr Gly Trp Ala Val  
225 230 235 240  
Glu Thr Thr Pro Ser Pro Thr Ser Asp Thr Gln Glu Asp Ile Leu Asp  
245 250 255  
Glu Leu Leu Gly Asn Met Val Leu Ala Pro Leu Pro Asp Pro Gly Pro  
260 265 270  
Pro Ser Leu Ala Val Ala Pro Glu Pro Cys Pro Gln Pro Leu Arg Ser  
275 280 285  
Pro Ser Leu Asp Asn Pro Thr Pro Phe Pro Asn Leu Gly Pro Ser Glu  
290 295 300  
Asn Pro Leu Lys Arg Leu Leu Val Pro Gly Glu Glu Trp Glu Phe Glu  
305 310 315 320  
Val Thr Ala Phe Tyr Arg Gly Arg Gln Val Phe Gln Gln Thr Ile Ser  
325 330 335  
Cys Pro Glu Gly Leu Arg Leu Val Gly Ser Glu Val Gly Asp Arg Thr  
340 345 350  
Leu Pro Gly Trp Pro Val Thr Leu Pro Asp Pro Gly Met Ser Leu Thr  
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Asp Arg Gly Val Met Ser Tyr Val Arg His Val Leu Ser Cys Leu Gly  
370 375 380  
Gly Gly Leu Ala Leu Trp Arg Ala Gly Gln Trp Leu Trp Ala Gln Arg  
385 390 395 400  
Leu Gly His Cys His Thr Tyr Trp Ala Val Ser Glu Glu Leu Leu Pro  
405 410 415  
Asn Ser Gly His Gly Pro Asp Gly Glu Val Pro Lys Asp Lys Glu Gly  
420 425 430  
Gly Val Phe Asp Leu Gly Pro Phe Ile Val Asp Leu Ile Thr Phe Thr  
435 440 445  
Glu Gly Ser Gly Arg Ser Pro Arg Tyr Ala Leu Trp Phe Cys Val Gly  
450 455 460  
Glu Ser Trp Pro Gln Asp Gln Pro Trp Thr Lys Arg Leu Val Met Val  
465 470 475 480  
Lys Val Val Pro Thr Cys Leu Arg Ala Leu Val Glu Met Ala Arg Val  
485 490 495  
Gly Gly Ala Ser Ser Leu Glu Asn Thr Val Asp Leu His Ile Asp Asn  
500 505 510  
Asp His Pro Leu Asp Leu Asp Asp Asp Gln Tyr Lys Ala Tyr Leu Gln  
515 520 525  
Asp Leu Val Glu Gly Met Asp Phe Gln Gly Pro Gly Glu Ser  
530 535 540